```
(base) vishnumpop-os: $ ifconfig
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
       inet 127.0.0.1 netmask 255.0.0.0
       inet6 ::1 prefixlen 128 scopeid 0x10<host>
       loop txqueuelen 1000 (Local Loopback)
       RX packets 2816 bytes 230108 (230.1 KB)
       RX errors 0 dropped 0 overruns 0 frame 0
       TX packets 2816 bytes 230108 (230.1 KB)
       TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
wlp0s20f3: flags=4163<UP,BROADCAST,RUNNING,MULTICAST> mtu 1500
       inet 192.168.243.202 netmask 255.255.255.0 broadcast 192.168.243.255
       inet6 2409:408d:18e:ddc3:310c:e6b5:7e64:1f9a prefixlen 64 scopeid 0x0<global>
       inet6 2409:408d:18e:ddc3:16af:5db6:7c9f:1569 prefixlen 64 scopeid 0x0<global>
       inet6 fe80::a051:a78e:bedd:223b prefixlen 64 scopeid 0x20<link>
       ether f4:a4:75:e2:45:96 txqueuelen 1000 (Ethernet)
       RX packets 477 bytes 413124 (413.1 KB)
       RX errors 0 dropped 0 overruns 0 frame 0
       TX packets 427 bytes 60232 (60.2 KB)
       TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
(base) vishnu@pop-os: $ ifconfig lo
lo: flags=73<UP,LOOPBACK,RUNNING> mtu 65536
       inet 127.0.0.1 netmask 255.0.0.0
       inet6 ::1 prefixlen 128 scopeid 0x10<host>
       loop txqueuelen 1000 (Local Loopback)
       RX packets 2817 bytes 230181 (230.1 KB)
       RX errors 0 dropped 0 overruns 0 frame 0
       TX packets 2817 bytes 230181 (230.1 KB)
       TX errors 0 dropped 0 overruns 0 carrier 0 collisions 0
```

```
(base) vishnumpop-os: $ ip a
1: lo: <LOOPBACK,UP,LOWER UP> mtu 65536 qdisc noqueue state UNKNOWN group default qlen 1000
    link/loopback 00:00:00:00:00:00 brd 00:00:00:00:00:00
   inet 127.0.0.1/8 scope host lo
      valid_lft forever preferred_lft forever
   inet6 ::1/128 scope host
      valid lft forever preferred lft forever
2: wlp0s20f3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default qlen 1000
    link/ether f4:a4:75:e2:45:96 brd ff:ff:ff:ff:ff:ff
   inet 192.168.243.202/24 brd 192.168.243.255 scope global dynamic noprefixroute wlp0s20f3
      valid lft 3484sec preferred lft 3484sec
   inet6 2409:408d:18e:ddc3:16af:5db6:7c9f:1569/64 scope global temporary dynamic
      valid lft 7097sec preferred lft 7097sec
   inet6 2409:408d:18e:ddc3:310c:e6b5:7e64:1f9a/64 scope global dynamic mngtmpaddr noprefixroute
      valid_lft 7097sec preferred_lft 7097sec
   inet6 fe80::a051:a78e:bedd:223b/64 scope link noprefixroute
      valid_lft forever preferred_lft forever
(base) vishnu@pop-os: $ ip a show wlp0s20f3
2: wlp0s20f3: <BROADCAST,MULTICAST,UP,LOWER_UP> mtu 1500 qdisc noqueue state UP group default qlen 1000
    link/ether f4:a4:75:e2:45:96 brd ff:ff:ff:ff:ff:ff
   inet 192.168.243.202/24 brd 192.168.243.255 scope global dynamic noprefixroute wlp0s20f3
      valid_lft 3468sec preferred_lft 3468sec
   inet6 2409:408d:18e:ddc3:16af:5db6:7c9f:1569/64 scope global temporary dynamic
      valid_lft 7081sec preferred_lft 7081sec
   inet6 2409:408d:18e:ddc3:310c:e6b5:7e64:1f9a/64 scope global dynamic mngtmpaddr noprefixroute
      valid_lft 7081sec preferred_lft 7081sec
   inet6 fe80::a051:a78e:bedd:223b/64 scope link noprefixroute
      valid_lft forever preferred_lft forever
```

```
traceroute to google.com (142.250.196.46), 30 hops max, 60 byte packets
1 gateway (192.168.243.247) 1.682 ms 1.651 ms 2.301 ms
3 255.0.0.0 (255.0.0.0) 50.784 ms 51.566 ms 51.859 ms
4 255.0.0.1 (255.0.0.1) 51.202 ms * *
5 255.0.0.3 (255.0.0.3) 52.912 ms 52.900 ms 52.886 ms
6 255.0.0.4 (255.0.0.4) 51.111 ms 39.978 ms 47.155 ms
7 172.26.75.83 (172.26.75.83) 46.269 ms 46.250 ms 47.351 ms
8 192.168.68.136 (192.168.68.136) 47.124 ms 47.112 ms 192.168.68.134 (192.168.68.134) 48.574 ms
9 * * *
10 * * *
11 72.14.217.254 (72.14.217.254) 43.230 ms 74.125.50.202 (74.125.50.202) 43.417 ms 72.14.196.126 (72.14.196.126) 42.959 ms
12 * * *
13 74.125.242.129 (74.125.242.129) 38.925 ms 142.251.60.184 (142.251.60.184) 38.590 ms 74.125.242.129 (74.125.242.129) 196.479 ms
14 74.125.242.154 (74.125.242.154) 196.436 ms 142.251.55.29 (142.251.55.29) 34.563 ms 74.125.242.131 (74.125.242.131) 43.410 ms
15 108.170.253.97 (108.170.253.97) 41.973 ms maa03s45-in-f14.1e100.net (142.250.196.46) 37.964 ms 53.323 ms
(base) vishnu@pop-os:~$ sudo traceroute -I google.com
[sudo] password for vishnu:
traceroute to google.com (142.250.196.46), 30 hops max, 60 byte packets
1 gateway (192.168.243.247) 3.886 ms 3.870 ms 4.050 ms
3 255.0.0.0 (255.0.0.0) 52.801 ms 53.567 ms 53.565 ms
4 255.0.0.1 (255.0.0.1) 52.795 ms 53.656 ms 53.777 ms
5 255.0.0.3 (255.0.0.3) 52.788 ms 53.781 ms 54.341 ms
6 255.0.0.4 (255.0.0.4) 51.967 ms 45.321 ms 46.129 ms
7 172.26.75.83 (172.26.75.83) 45.301 ms 28.161 ms 41.620 ms
8 192.168.68.136 (192.168.68.136) 40.801 ms 192.168.68.134 (192.168.68.134) 40.147 ms 192.168.68.136 (192.168.68.136) 40.879 ms
9 * * *
10 * * *
11 72.14.217.254 (72.14.217.254) 39.172 ms 44.043 ms 22.417 ms
12 216.239.43.135 (216.239.43.135) 41.169 ms 49.262 ms 50.203 ms
13 142.251.55.29 (142.251.55.29) 48.551 ms 48.716 ms 44.309 ms
14 maa03s45-in-f14.1e100.net (142.250.196.46) 41.186 ms 39.689 ms 40.477 ms
```

(base) vishnu@pop-os:~\$ traceroute google.com

```
(base) vishnumpop-os: $ tracepath google.com
1?: [LOCALHOST]
                                           0.006ms pmtu 1500
1:
     2409:408d:18e:ddc3::f8
                                                               96.619ms
1:
     2409:408d:18e:ddc3::f8
                                                                1.968ms
2:
     no reply
3:
     2405:200:363:161:5::3
                                                               74.526ms asymm
4:
     2405:200:801:900::13cf
                                                               95.121ms asymm
5:
     2405:200:801:900::12f6
                                                               74.556ms
6:
     2405:200:801:900::128f
                                                               71.171ms asymm
                                                                                5
7:
     2001:4860:1:1::16a
                                                               63.149ms asymm
                                                                                8
8:
     2001:4860:1:1::d10
                                                               79.568ms asymm 11
9:
     no reply
10:
     no reply
11:
     no reply
12:
     no reply
13:
     no reply
14:
     no reply
15:
     no reply
16:
     no reply
17:
     no reply
18:
     no reply
     no reply
19:
20:
     no reply
21:
     no reply
22:
     no reply
23:
     no reply
     no reply
24:
     no reply
25:
26:
     no reply
27:
     no reply
28:
     no reply
29:
     no reply
     no reply
30:
     Too many hops: pmtu 1500
     Resume: pmtu 1500
```

```
(base) vishnumpop-os: $ ping google.com
PING google.com(maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e)) 56 data bytes
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seg=1 ttl=57 time=38.9 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seg=2 ttl=57 time=48.1 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seg=3 ttl=57 time=46.4 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seg=4 ttl=57 time=40.8 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seq=5 ttl=57 time=96.3 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seq=6 ttl=57 time=38.6 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp_seq=7 ttl=57 time=45.2 ms
--- google.com ping statistics ---
8 packets transmitted, 7 received, 12.5% packet loss, time 7027ms
rtt min/avg/max/mdev = 38.563/50.598/96.279/18.966 ms
(base) vishnu@pop-os: $ ping -c 5 google.com
PING google.com(maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e)) 56 data bytes
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seg=1 ttl=57 time=370 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seq=2 ttl=57 time=42.9 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seg=3 ttl=57 time=41.0 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seq=4 ttl=57 time=118 ms
64 bytes from maa03s29-in-x0e.1e100.net (2404:6800:4007:80a::200e): icmp seq=5 ttl=57 time=45.6 ms
--- google.com ping statistics ---
5 packets transmitted, 5 received, 0% packet loss, time 4010ms
rtt min/avg/max/mdev = 41.035/123.615/370.478/126.792 ms
```

```
(base) vishnumpop-os: $ netstat
Active Internet connections (w/o servers)
Proto Recv-Q Send-Q Local Address
                                              Foreign Address
                                                                       State
                                              2a04:4e42:25::347:https ESTABLISHED
tcp6
           0
                   0 pop-os:56198
           0
                                              2a04:4e42:25::347:https ESTABLISHED
tcp6
                  0 pop-os:49898
           0
                                              2a04:4e42:25::347:https ESTABLISHED
tcp6
                   0 pop-os:56176
           0
                                              2a04:4e42:25::347:https ESTABLISHED
                  0 pop-os:56208
tcp6
           0
                                              2a04:4e42:25::347:https ESTABLISHED
                    pop-os:56182
tcp6
                  0 pop-os:49936
tcp6
           0
                                              2a04:4e42:25::347:https ESTABLISHED
           0
                                              2a04:4e42:25::347:https ESTABLISHED
                  0 pop-os:49924
tcp6
           0
                                              2a04:4e42:25::347:https ESTABLISHED
                   0 pop-os:56134
tcp6
           0
                                              2a04:4e42:25::347:https ESTABLISHED
tcp6
                  0 pop-os:56144
                                              2a04:4e42:25::347:https ESTABLISHED
           0
                  0 pop-os:56128
tcp6
           0
                  0 pop-os:49908
                                              2a04:4e42:25::347:https ESTABLISHED
tcp6
           0
tcp6
                  0 pop-os:56224
                                              2a04:4e42:25::347:https ESTABLISHED
           0
                                              2a04:4e42:25::347:https ESTABLISHED
                  0 pop-os:56158
tcp6
                                              2a04:4e42:25::347:https ESTABLISHED
           0
                  0 pop-os:56202
tcp6
                                              2a04:4e42:25::347:https ESTABLISHED
           0
                  0 pop-os:56166
tcp6
           0
                  0 pop-os:49904
                                              2a04:4e42:25::347:https ESTABLISHED
tcp6
           0
tcp6
                  0 pop-os:56180
                                              2a04:4e42:25::347:https ESTABLISHED
           0
                   0 pop-os:bootpc
                                              _gateway:bootps
                                                                       ESTABLISHED
udp
           0
                  0 pop-os:41169
                                              udp6
Active UNIX domain sockets (w/o servers)
Proto RefCnt Flags
                          Type
                                                    I-Node
                                                              Path
                                     State
                                                              /run/systemd/journal/stdout
      3
                          STREAM
                                                    39089
unix
                                     CONNECTED
unix
                          STREAM
                                     CONNECTED
                                                    33457
     3
                          STREAM
                                                    39007
                                                              /run/user/1000/bus
unix
                                     CONNECTED
                                                    38352
unix
                          STREAM
                                     CONNECTED
                                                              /run/dbus/system_bus_socket
unix
                          STREAM
                                     CONNECTED
                                                    21946
                                                              /run/user/1000/bus
                                                    38907
unix
     3
                          STREAM
                                     CONNECTED
                                                    34465
unix
                          STREAM
                                     CONNECTED
                                                              a/home/vishnu/.cache/ibus/dbus-xPDWW91H
     3
unix
                          STREAM
                                     CONNECTED
                                                    40271
unix
                          STREAM
                                     CONNECTED
                                                    34324
unix
                          STREAM
                                     CONNECTED
                                                    34295
                                     CONNECTED
unix
      3
                          STREAM
                                                    33371
                                                    32091
unix
                          STREAM
                                     CONNECTED
      3
unix
                          STREAM
                                     CONNECTED
                                                    30128
unix
                          STREAM
                                     CONNECTED
                                                    28699
                                                              /run/systemd/journal/stdout
                                                    40211
unix
                          STREAM
                                     CONNECTED
unix
      3
                          STREAM
                                     CONNECTED
                                                    40004
                                                              /run/user/1000/bus
unix
                          STREAM
                                     CONNECTED
                                                    31298
      3
                          STREAM
                                     CONNECTED
                                                    42282
unix
unix
                          DGRAM
                                                    31625
                                     CONNECTED
                                                    37072
unix
                          STREAM
                                                    31626
unix
                          STREAM
                                     CONNECTED
unix
                                                    49244
                          STREAM
                                     CONNECTED
```

```
(base) vishnumpop-os: $ netstat -s
Ip:
    Forwarding: 2
    3468 total packets received
    1 with invalid addresses
    0 forwarded
    0 incoming packets discarded
    3465 incoming packets delivered
    3447 requests sent out
    18 dropped because of missing route
Icmp:
    69 ICMP messages received
    0 input ICMP message failed
    ICMP input histogram:
        destination unreachable: 3
        timeout in transit: 59
        echo replies: 7
    48 ICMP messages sent
    0 ICMP messages failed
    ICMP output histogram:
        destination unreachable: 2
        echo requests: 46
IcmpMsg:
        InType0: 7
        InType3: 3
        InType11: 59
        OutType3: 2
```

(base) vishnump	op-os: \$ netsta	t -r					
Kernel IP routi	ng table						
Destination	Gateway	Genmask	Flags	MSS	Window	irtt	Iface
default	_gateway	0.0.0.0	UG	0	0	0	wlp0s20f3
link-local	0.0.0.0	255.255.0.0	U	Θ	0	0	wlp0s20f3
192.168.243.0	0.0.0.0	255.255.255.0	U	0	0	0	wlp0s20f3

(base)	vishnu@pop-os:-\$ ss				
Netid	State	Recv-Q	Send-Q	Local Address:Port	Peer Address:Port Process
u_str	ESTAB	0	0	/run/systemd/journal/stdout 39089	* 34465
u_str	ESTAB	0	Θ	* 33457	* 39069
u_str	ESTAB	0	0	/run/user/1000/bus 39007	* 38456
u_str	ESTAB	0	0	* 38352	* 39980
u_str	ESTAB	0	0	/run/dbus/system_bus_socket 21946	* 21943
u_str	ESTAB	0	0	/run/user/1000/bus 38907	* 40756
u_str	ESTAB	0	0	* 34465	* 39089
u_str	ESTAB	0	0	a/home/vishnu/.cache/ibus/dbus-xPDWW91H 40271	* 40270
u_str	ESTAB	0	0	* 34324	* 36776
u_str	ESTAB	0	0	* 34295	* 39997
u_str	ESTAB	0	0	* 33371	* 40202
u_str	ESTAB	0	0	* 32091	* 33048
u_str	ESTAB	0	0	* 30128	* 33826
u_str	ESTAB	0	0	* 28699	* 28698
u_str	ESTAB	0	0	/run/systemd/journal/stdout 40211	* 40210
u_str	ESTAB	0	0	* 40004	* 34306
u_str	ESTAB	0	0	/run/user/1000/bus 31298	* 37080
u_str	ESTAB	0	0	* 52927	* 50001
u_str	ESTAB	0	0	* 42282	* 34811
u_str	ESTAB	0	0	* 37072	* 39966
u_str	ESTAB	0	0	* 31626	* 34332
u_str	ESTAB	0	0	* 49244	* 45919
u_str	ESTAB	0	0	/run/dbus/system_bus_socket 37210	* 37205
u_str	ESTAB	0	0	/run/user/1000/bus 37171	* 37170
u_str	ESTAB	0	0	* 29863	* 30803
u_str	ESTAB	0	0	/run/user/1000/bus 39053	* 36832
u_str	ESTAB	0	0	/run/user/1000/at-spi/bus_1 33435	* 38511
u_dgr	ESTAB	0	0	* 31031	* 31030
u_str	ESTAB	0	Θ	* 22026	* 27634
u_str	ESTAB	0	0	* 33367	* 40188
u_dgr	ESTAB	0	Θ	* 30817	* 23911
u_dgr	ESTAB	0	0	* 23131	* 23935
u_str	ESTAB	0	Θ	/run/systemd/journal/stdout 23101	* 28707
u_str	ESTAB	0	0	/run/user/1000/bus 36791	* 37132
u_str	ESTAB	0	Θ	/run/dbus/system_bus_socket 40708	* 38881
u_str	ESTAB	0	0	* 39083	* 38542
u_str	ESTAB	0	0	* 39016	* 38472
u_str	ESTAB	0	0	* 39948	* 37065
u_str	ESTAB	0	0	* 33180	* 31147
u dar	FSTAR	A	A	÷ 20/82	* 22027

```
(base) vishnu@pop-os: $ dig google.com
; <<>> DiG 9.18.12-Oubuntu0.22.04.2-Ubuntu <<>> google.com
;; global options: +cmd
;; Got answer:
;; ->>HEADER<<- opcode: QUERY, status: NOERROR, id: 60025
;; flags: qr rd ra; QUERY: 1, ANSWER: 1, AUTHORITY: 0, ADDITIONAL: 1
;; OPT PSEUDOSECTION:
; EDNS: version: 0, flags:; udp: 65494
;; QUESTION SECTION:
;google.com.
                               IN
;; ANSWER SECTION:
google.com.
                       230 IN A 142.250.195.142
;; Query time: 272 msec
;; SERVER: 127.0.0.53#53(127.0.0.53) (UDP)
;; WHEN: Thu Jul 27 20:54:28 IST 2023
;; MSG SIZE rcvd: 55
```

```
(base) vishnu@pop-os: $ nslookup google.com
               127.0.0.53
Server:
Address:
               127.0.0.53#53
Non-authoritative answer:
Name: google.com
Address: 142.250.195.142
Name: google.com
Address: 2404:6800:4007:80a::200e
```

(base) vishnump Kernel IP routi							
Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
default	_gateway	0.0.0.0	UG	600	0	0	wlp0s20f3
link-local	0.0.0.0	255.255.0.0	U	1000	0	0	wlp0s20f3
192.168.243.0	0.0.0.0	255.255.255.0	U	600	0	0	wlp0s20f3
(base) vishnuap	op-os: \$ route -	1					
Kernel IP routi	ng table						
Destination	Gateway	Genmask	Flags	Metric	Ref	Use	Iface
0.0.0.0	192.168.243.247	0.0.0.0	UG	600	0	Θ	wlp0s20f3
169.254.0.0	0.0.0.0	255.255.0.0	U	1000	Θ	0	wlp0s20f3
192.168.243.0	0.0.0.0	255.255.255.0	U	600	0	0	wlp0s20f3

(base) vishnu@pop-os:~\$ host google.com google.com has address 142.250.195.142 google.com has IPv6 address 2404:6800:4007:80a::200e google.com mail is handled by 10 smtp.google.com.

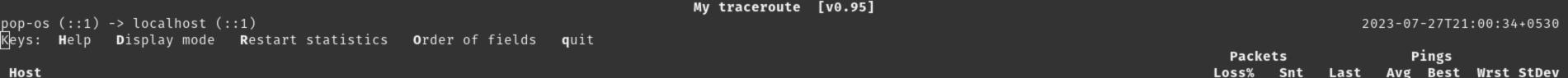
(base) vishnu@pop-os: \$	arp			
Address _gateway	HWtype ether	HWaddress 72:47:1a:1a:71:85	Flags Mask C	Iface wlp0s20f3
(base) vishnumpop-os: \$	arp -n			
Address	HWtype	HWaddress	Flags Mask	Iface
192.168.243.247	ether	72:47:1a:1a:71:85	c -	wlp0s20f3
Z	62			

```
(base) vishnu@pop-os: $ iwconfig
lo no wireless extensions.
wlp0s20f3 IEEE 802.11 ESSID:"Vishnu's Mi"
         Mode: Managed Frequency: 2.432 GHz Access Point: 72:47:1A:1A:71:85
         Bit Rate=72.2 Mb/s Tx-Power=22 dBm
         Retry short limit:7 RTS thr:off Fragment thr:off
         Power Management:on
         Link Quality=70/70 Signal level=-17 dBm
         Rx invalid nwid:0 Rx invalid crypt:0 Rx invalid frag:0
         Tx excessive retries:0 Invalid misc:59 Missed beacon:0
```

```
(base) vishnumpop-os: $ hostname
pop-os
(base) vishnu@pop-os: $ sudo hostname vishnu
(base) vishnumpop-os: $ hostname
vishnu
```

```
(base) vishnu@pop-os:~$ curl -O http://web.iiitdm.ac.in/noor/hpcw2021.pdf
% Total % Received % Xferd Average Speed Time Time
                                                        Time Current
                            Dload Upload Total Spent Left Speed
100 171k 100 171k
                        0 15577 0 0:00:11 0:00:11 --:--- 41060
```

```
(base) vishnu@pop-os: $ wget http://web.iiitdm.ac.in/noor/hpcw2021.pdf
--2023-07-27 20:59:14-- http://web.iiitdm.ac.in/noor/hpcw2021.pdf
Resolving web.iiitdm.ac.in (web.iiitdm.ac.in)... 64:ff9b::adec:cdcf, 173.236.205.207
Connecting to web.iiitdm.ac.in (web.iiitdm.ac.in)|64:ff9b::adec:cdcf|:80... connected.
HTTP request sent, awaiting response... 200 OK
Length: 175817 (172K) [application/pdf]
Saving to: 'hpcw2021.pdf.1'
                                      hpcw2021.pdf.1
2023-07-27 20:59:16 (178 KB/s) - 'hpcw2021.pdf.1' saved [175817/175817]
```



0.0% 51 0.1 0.1 0.1 0.0

localhost

```
(base) vishnu@pop-os: $ whois google.com
  Domain Name: GOOGLE.COM
  Registry Domain ID: 2138514_DOMAIN_COM-VRSN
  Registrar WHOIS Server: whois.markmonitor.com
  Registrar URL: http://www.markmonitor.com
  Updated Date: 2019-09-09T15:39:04Z
  Creation Date: 1997-09-15T04:00:00Z
  Registry Expiry Date: 2028-09-14T04:00:00Z
  Registrar: MarkMonitor Inc.
  Registrar IANA ID: 292
  Registrar Abuse Contact Email: abusecomplaints@markmonitor.com
  Registrar Abuse Contact Phone: +1.2086851750
  Domain Status: clientDeleteProhibited https://icann.org/epp#clientDeleteProhibited
  Domain Status: clientTransferProhibited https://icann.org/epp#clientTransferProhibited
  Domain Status: clientUpdateProhibited https://icann.org/epp#clientUpdateProhibited
  Domain Status: serverDeleteProhibited https://icann.org/epp#serverDeleteProhibited
  Domain Status: serverTransferProhibited https://icann.org/epp#serverTransferProhibited
  Domain Status: serverUpdateProhibited https://icann.org/epp#serverUpdateProhibited
  Name Server: NS1.GOOGLE.COM
  Name Server: NS2.GOOGLE.COM
  Name Server: NS3.GOOGLE.COM
  Name Server: NS4.GOOGLE.COM
  DNSSEC: unsigned
  URL of the ICANN Whois Inaccuracy Complaint Form: https://www.icann.org/wicf/
>>> Last update of whois database: 2023-07-27T15:31:06Z <<<
For more information on Whois status codes, please visit https://icann.org/epp
NOTICE: The expiration date displayed in this record is the date the
registrar's sponsorship of the domain name registration in the registry is
currently set to expire. This date does not necessarily reflect the expiration
date of the domain name registrant's agreement with the sponsoring
registrar. Users may consult the sponsoring registrar's Whois database to
view the registrar's reported date of expiration for this registration.
TERMS OF USE: You are not authorized to access or query our Whois
```

database through the use of electronic processes that are high-volume and automated except as reasonably necessary to register domain names or modify existing registrations; the Data in VeriSign Global Registry Services' ("VeriSign") Whois database is provided by VeriSign for information purposes only, and to assist persons in obtaining information about or related to a domain name registration record. VeriSign does not guarantee its accuracy. By submitting a Whois query, you agree to abide by the following terms of use: You agree that you may use this Data only for lawful purposes and that under no circumstances will you use this Data to: (1) allow, enable, or otherwise support the transmission of mass

```
(base) vishnu@pop-os: $ iftop
interface: wlp0s20f3
IP address is: 192.168.243.202
IPv6 address is: 2409:408d:18e:ddc3:16af:5db6:7c9f:1569
MAC address is: f4:a4:75:e2:45:96
pcap_open_live(wlp0s20f3): wlp0s20f3: You don't have permission to capture on that device (socket: Operation not permitted)
(base) vishnu@pop-os: $ iftop -p
interface: wlp0s20f3
IP address is: 192.168.243.202
IPv6 address is: 2409:408d:18e:ddc3:16af:5db6:7c9f:1569
MAC address is: f4:a4:75:e2:45:96
pcap_open_live(wlp0s20f3): wlp0s20f3: You don't have permission to capture on that device (socket: Operation not permitted)
(base) vishnu@pop-os: $ sudo iftop -b
interface: wlp0s20f3
IP address is: 192.168.243.202
IPv6 address is: 2409:408d:18e:ddc3:16af:5db6:7c9f:1569
MAC address is: f4:a4:75:e2:45:96
(base) vishnumpop-os: $ sudo iftop -P
interface: wlp0s20f3
IP address is: 192.168.243.202
IPv6 address is: 2409:408d:18e:ddc3:16af:5db6:7c9f:1569
MAC address is: f4:a4:75:e2:45:96
```

```
(base) vishnu@pop-os: $ tcpdump
tcpdump: wlp0s20f3: You don't have permission to capture on that device
(socket: Operation not permitted)
(base) vishnu@pop-os: $ tcpdump -i wlp0s20f3 tcp
tcpdump: wlp0s20f3: You don't have permission to capture on that device
(socket: Operation not permitted)
(base) vishnu@pop-os: $ sudo tcpdump -i wlp0s20f3 tcp
tcpdump: verbose output suppressed, use -v[v]... for full protocol decode
listening on wlp0s20f3, link-type EN10MB (Ethernet), snapshot length 262144 bytes
0 packets captured
O packets received by filter
0 packets dropped by kernel
```

```
(base) vishnu@pop-os: $ sudo nmap -0 google.com
Starting Nmap 7.80 ( https://nmap.org ) at 2023-07-27 21:05 IST
Nmap scan report for google.com (142.250.193.142)
Host is up (0.044s latency).
Other addresses for google.com (not scanned): 2404:6800:4007:820::200e
rDNS record for 142.250.193.142: maa05s25-in-f14.1e100.net
Not shown: 998 filtered ports
PORT STATE SERVICE
80/tcp open http
443/tcp open https
Warning: OSScan results may be unreliable because we could not find at least 1 open and 1 closed port
Device type: general purpose
Running (JUST GUESSING): FreeBSD 8.X (86%), OpenBSD 4.X (86%)
OS CPE: cpe:/o:freebsd:freebsd:8.2 cpe:/o:openbsd:openbsd:4.0
Aggressive OS guesses: FreeBSD 8.2-RELEASE (86%), OpenBSD 4.0 (86%)
No exact OS matches for host (test conditions non-ideal).
OS detection performed. Please report any incorrect results at https://nmap.org/submit/ .
Nmap done: 1 IP address (1 host up) scanned in 9.65 seconds
```